

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/071,314	HELBER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Venkataraman Balasubramanian	1624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/21/2004.
2. ☒ The allowed claim(s) is/are 1,2 and 4-13.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>2/23/2004</u> .</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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### **DETAILED ACTION**

Applicants' response, which included amendment to claims 1, 5, 8, 11, filed on 12/21/2004, is made of record.

Claims 1-13 are pending.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sarah Meeks Roberts on 2/13/2004.

The application has been amended as follows:

1. In claim 1, replace the current X definition which reads as, "X represents a sulfoxide (S=O), sulfone (SO<sub>2</sub>), or dicyanovinyl (C(CN)<sub>2</sub>) group;" with  
"X represents a sulfone (SO<sub>2</sub>) group;"
2. In claim 1, replace current Y definition which reads as, "Y represents a sulfoxide (S=O), sulfone (SO<sub>2</sub>), carbonyl (C=O) or dicyanovinyl (C(CN)<sub>2</sub>) group;" with  
"Y represents a carbonyl (C=O) group;"
3. In claim 5, replace the current X<sub>1</sub> definition which reads as, "X<sub>1</sub> represents a sulfoxide (S=O), sulfone (SO<sub>2</sub>), or dicyanovinyl (C(CN)<sub>2</sub>) group;" with  
"X<sub>1</sub> represents a sulfone (SO<sub>2</sub>) group;"

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4. In claim 5, replace current  $Y_1$  definition which reads as, " $Y_1$  represents a sulfoxide ( $S=O$ ), sulfone ( $SO_2$ ), carbonyl ( $C=O$ ) or dicyanovinyl ( $C(CN)_2$ ) group;" with  
  
" $Y_1$  represents a carbonyl ( $C=O$ ) group;
5. Cancel claim 3.
6. In claim 8, replace current D definition, which reads as, "D is a moiety in conjugation with the carbonyl oxygen of the benzothiazine ring." with  
  
"D is a moiety in conjugation with the carbonyl oxygen of the benzothiazine ring with the proviso that D is not a hemicyanine moiety." .

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

In view of the applicants' amendment to claims 1, 5, 8, 11, all 112 second paragraph rejections made in the previous office action have been obviated. As for the 102(b) rejection Davis et al applied was also obviated in view of the proviso in the D definition in the amended claims 1 and 8.

The dye compound represented by formulae II, IIA or III, IIIA as shown in claim 1 and 8 wherein X is a sulfone (SO<sub>2</sub>) group, Y is a carbonyl (C=O) group, namely a benzothiazine compound with specific R<sup>1</sup>, R<sup>2</sup>, L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, D and W groups with the proviso that D is not a hemicyanine moiety embraced herein was not found to be anticipated or rendered obvious by the prior art of record. Additional search in the related art area also did not yield any prior art disclosing a benzothiazine dye of formulae II, IIA or III, IIIA as shown in claim 1 and 8 wherein X is a sulfone (SO<sub>2</sub>) group, Y is a carbonyl (C=O) group, namely a benzothiazine compound with specific R<sup>1</sup>, R<sup>2</sup>, L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, D and W groups with the proviso that D is not a hemicyanine moiety embraced in the instant claims 1-2 and 4-13. Therefore, the examiner noted that the claims 1-13 would be in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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### Conclusion

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is Mukund Shah whose telephone number is (571) 272-0674. If Applicants are unable to reach Mukund Shah within 24-hour period, they may contact James O. Wilson, Acting-SPE of art unit 1624 at 571-272-0661.

The fax phone number for the organization where this application or proceeding is assigned (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

*Venkataraman Balasubramanian*  
Venkataraman Balasubramanian

2/23/2004